



HAMILTON COUNTY

Maternal and Infant Health Quarterly Report January - March 2018

Whitney Rémy, MPH, Epidemiologist
Thomas Boeshart, MPH, Senior Epidemiologist



PREVENT. PROMOTE. PROTECT.





INTRODUCTION

The series of Maternal and Infant Health Quarterly Surveillance Reports are part of a county-wide initiative to improve maternal and infant health and reduce infant mortality. In order to take effective actions to improve the health and safety of infants in the community, it is essential to identify, describe and monitor the problems and populations at risk. This report characterizes the current status of infant mortality and maternal health in Hamilton County.

In order to determine if maternal and infant health are improving in Hamilton County, 2017 data for the same time period (Jan - Mar) will be presented alongside the 2018 data. Hamilton County baseline data, and the appropriate Healthy People 2020 goal, are also provided at the bottom of each page (where applicable) to determine if infant mortality in Hamilton County is improving.

The Maternal and Infant Health Quarterly Surveillance Report will include the following indicators:

- Infant Mortality
- Preterm Birth
- Small for Gestational Age
- Pregnancy Spacing
- Maternal Smoking
- Prenatal Care
- Breastfeeding
- Safe Sleep

Infant mortality is one of the most important indicators of the health of a community.

Read on to learn more about maternal and infant health in Hamilton County.



INFANT MORTALITY

Infant mortality is the death of a baby before his or her first birthday¹. An infant mortality rate is used as an indicator of community health, poverty and socioeconomic status levels in a community, and the availability and quality of health services².

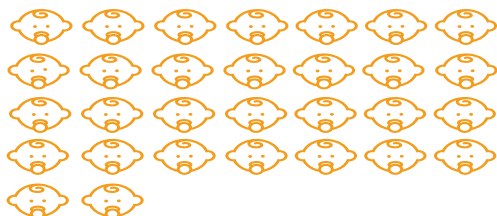
$$\text{FYI} \quad \text{Infant Mortality Rate} = \frac{\text{\# of infant deaths}}{\text{\# of live births}} \times 1,000$$

What is the infant mortality rate in Hamilton County?

2018

(Jan - Mar)

Number of Infant Deaths



= 1 infant death

Number of Live Births

2,539

Infant Mortality Rate

11.8 per 1,000

2017

(Jan - Mar)

Number of Infant Deaths



= 1 infant death

Number of Live Births

2,583

Infant Mortality Rate

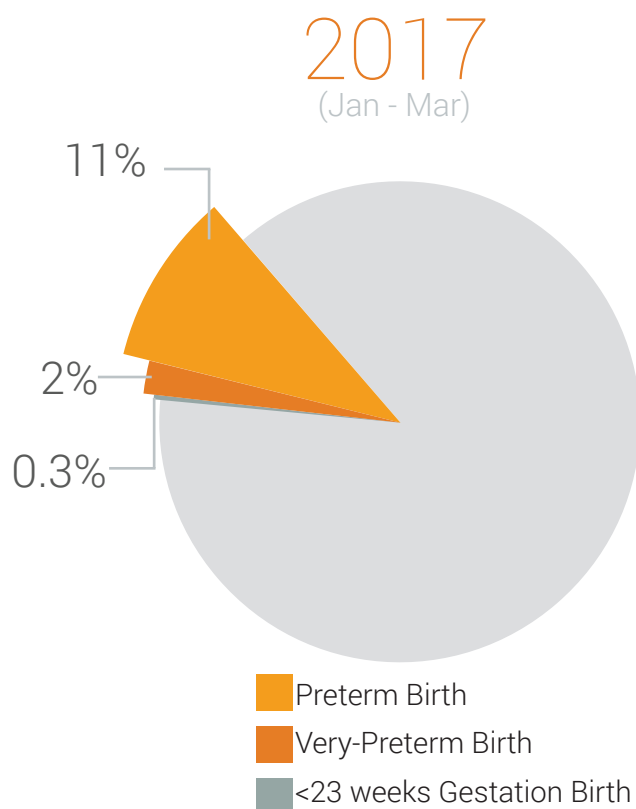
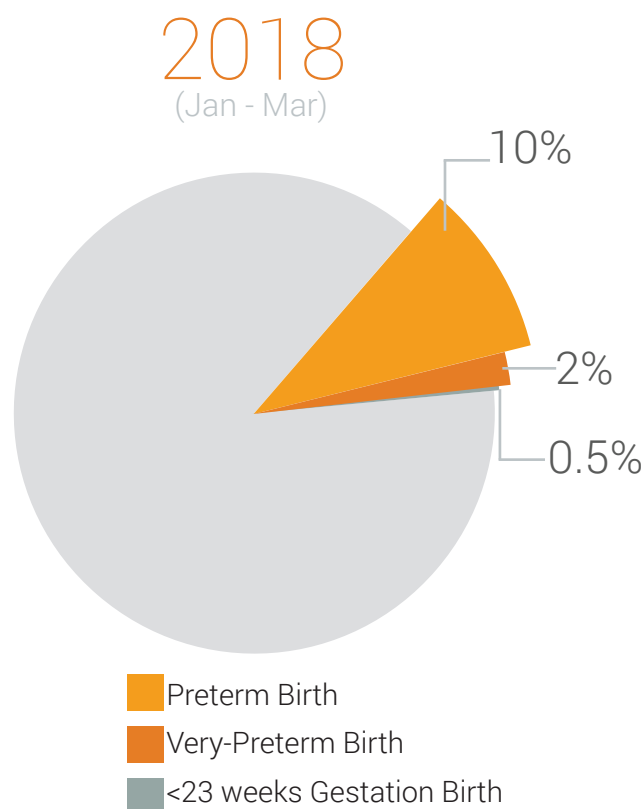
7.0 per 1,000

PRETERM BIRTH

Preterm birth is a significant risk factor for infant mortality and many other adverse health outcomes.

FYI | Preterm birth rate is the percent of infants born before 37 weeks gestation.
| Very-preterm birth rate is the percent of infants born before 32 weeks gestation.
| <23 weeks birth rate is the percentage of infants born before 23 weeks gestation.

What is the preterm birth rate in Hamilton County?



DID YOU
KNOW?

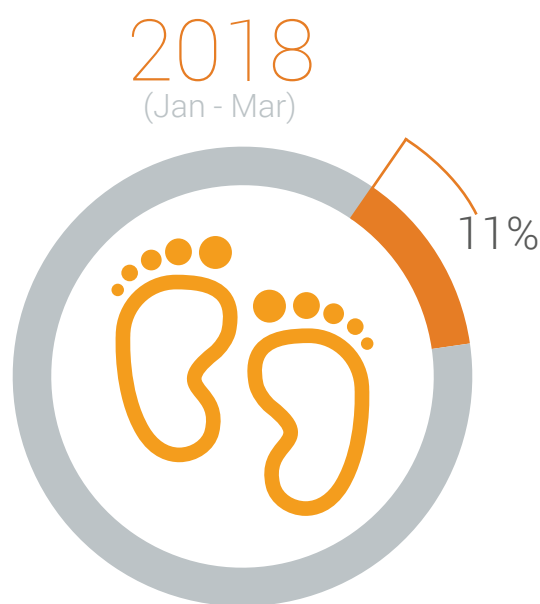
73% of infant deaths from Jan - Mar 2018 were preterm births.

Preterm Birth Baseline (2011): 13.7%. Very-Preterm Birth Baseline (2011): 3.1% <23 Weeks Gestation Birth Baseline (2011): 0.5%
Healthy People 2020 Goal for Preterm Birth: 11.4%

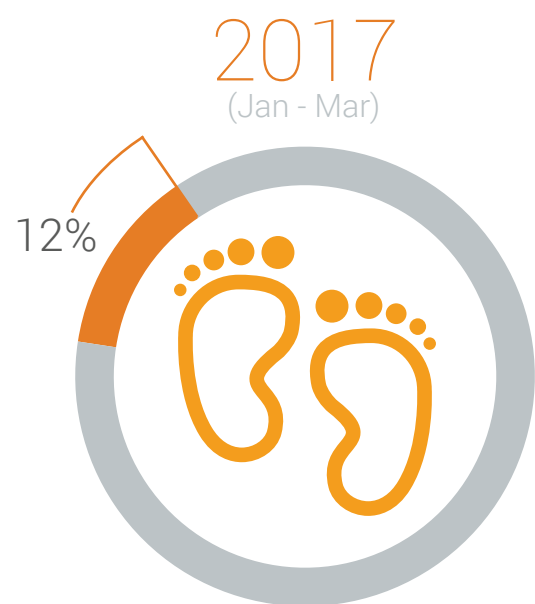
SMALL FOR GESTATIONAL AGE

Small for gestational age is the percent of singleton live-born infants whose birth weight is at or below the 10th percentile for a given gestational age³. Infants who are born with small for gestational age are an increased risk for infant mortality and morbidity, permanent deficits in growth, neurocognitive developments in childhood, and development of adult chronic disease³.

What is the small for gestational age birth rate in Hamilton County?



% of babies born small for gestational age



% of babies born small for gestational age

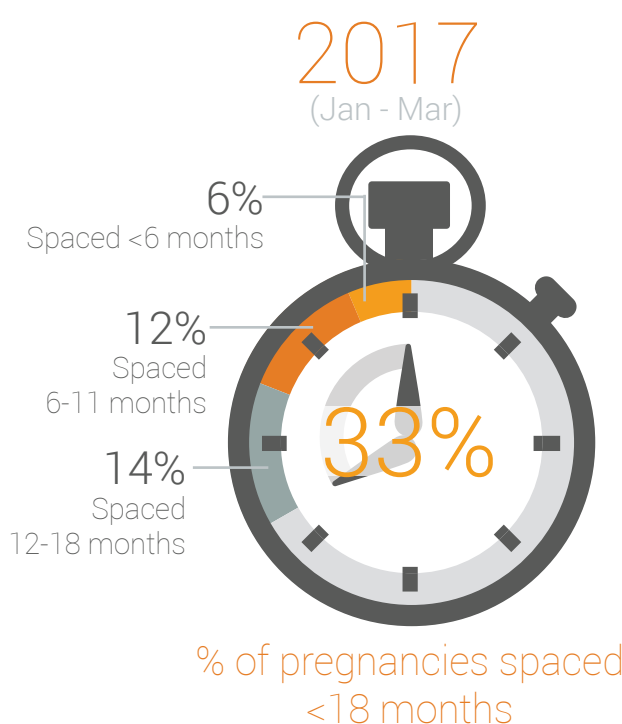
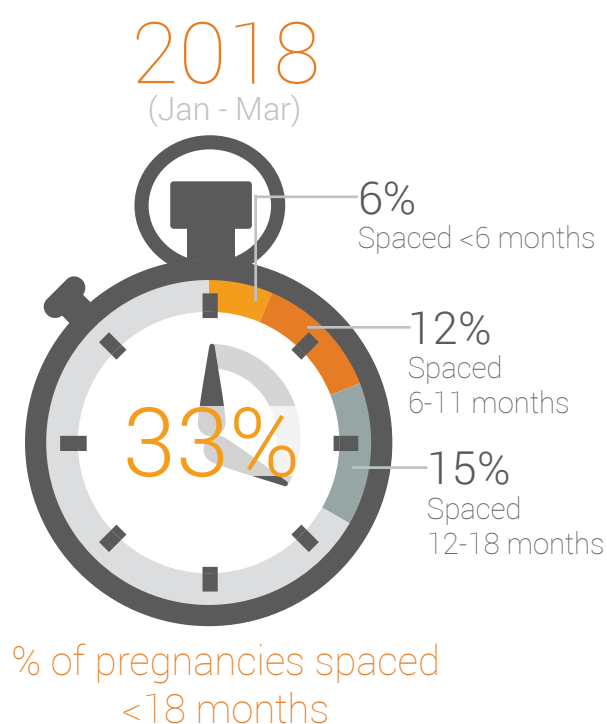
DID YOU
KNOW?

23% of infant deaths from Jan - Mar 2018 were small for their gestational age.

PREGNANCY SPACING

Research has shown that short spacing between pregnancies, less than 18 months from a previous live birth to conception of the next pregnancy, can lead to harmful outcomes for both mother and newborn. Mothers with short pregnancy spacing have an increased risk for developing pre-eclampsia, while the infant is more likely to be born prematurely, or with low birth weight, both risk factors for infant mortality. Optimal spacing can lead to better outcomes for both the mother and the infant. It should be noted that pregnancy spacing does not include births to first time mothers, or where information about her previous live birth was unknown.

What is pregnancy spacing like in Hamilton County?



DID YOU
KNOW?

43% of infant deaths from Jan - Mar 2018 were to mothers with short pregnancy spacing.

MATERNAL SMOKING

Tobacco use, and other forms of substance abuse during pregnancy, can be extremely harmful to a developing baby. Recent data has shown us that local women who smoked during pregnancy were 44% more likely to have an infant death. It should be noted that maternal smoking is measured only to those mothers whose smoking status was known.

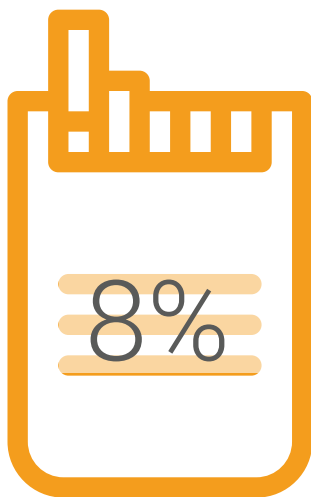
FYI

Maternal smoking is the percent of mothers who smoked during the 2nd or 3rd trimester of pregnancy.

What is the maternal smoking rate in Hamilton County?

2018

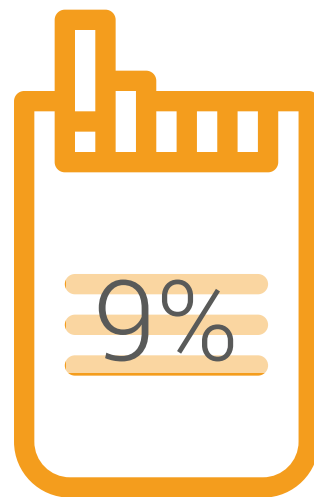
(Jan - Mar)



% of births to mothers who smoked during their 2nd or 3rd trimester

2017

(Jan - Mar)



% of births to mothers who smoked during their 2nd or 3rd trimester

DID YOU
KNOW?

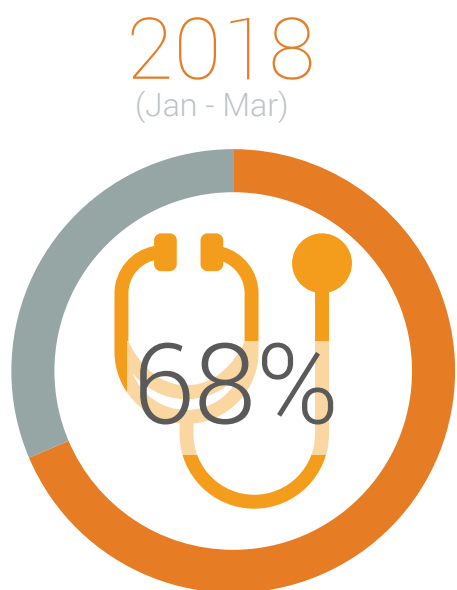
If you want to quit smoking and need help, you can call the Ohio Quitline at **1-800-QUIT-NOW**

Smoking in 2nd or 3rd Trimester Baseline (2011): 12.8%

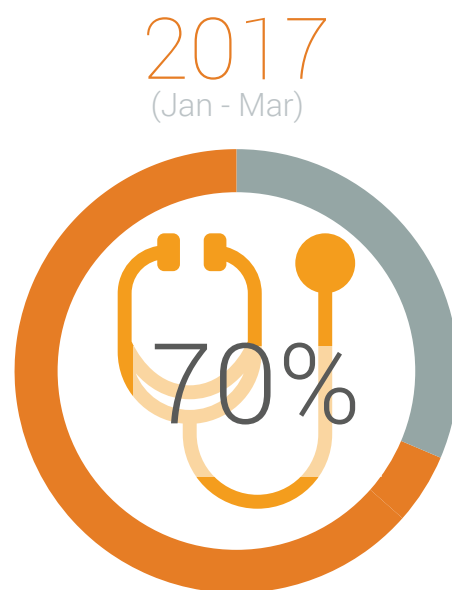
PRENATAL CARE

Having a healthy pregnancy is one of the best ways to promote a healthy birth. By accessing early and regular prenatal care a mother can improve her chances of having a healthy pregnancy. Early prenatal care access is the percent of mothers who began prenatal care within the 1st trimester of pregnancy. Pregnant women who do not access adequate prenatal care can run the risk that complications during pregnancy will go undetected, which increases the risk for adverse health outcomes for both mom and baby⁴.

What is prenatal care access like in Hamilton County?



% of pregnancies to mothers who began prenatal care in the 1st trimester



% of pregnancies to mothers who began prenatal care in the 1st trimester

DID YOU
KNOW?

30%

of infant deaths from Jan - Mar of 2018 were to mothers who did not begin prenatal care in the 1st trimester.

BREASTFEEDING

Breastfeeding impacts infants and mothers in the immediate postpartum period and infancy⁵. Infants who are exclusively breastfed or have breastfed for any extent of time experience significantly fewer infections and diseases than infants who never breastfed or were formula-fed⁵. Studies have also found that breastfeeding can lower the risk for infant mortality, and Sudden Unexplained Infant Death (SUID)⁶.

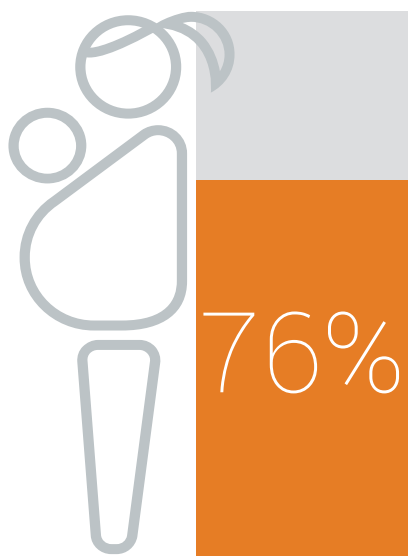
FYI

Breastfeeding initiation rate is the percentage of births where the infant was reported to be breastfeeding at discharge.

What is the breastfeeding initiation rate in Hamilton County?

2018

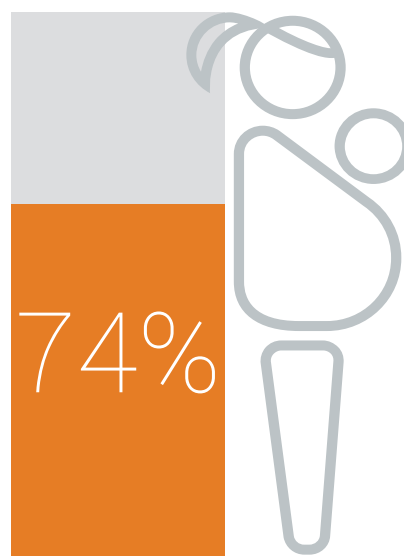
(Jan - Mar)



% of births where the infant was reported to be breastfeeding at discharge

2017

(Jan - Mar)



% of births where the infant was reported to be breastfeeding at discharge

SAFE SLEEP

A safe sleeping environment is one in which the infant is sleeping alone, on his/her back, and in a crib. A sleep-related death is the death of an infant due to unsafe sleeping environments. An unsafe sleeping environment can consist of co-sleeping (a parent, adult, or older child sharing a bed with an infant), an infant sleeping on a couch or in a bouncer/rocker, an infant sleeping in a crib filled with blankets or pillows, or an infant being put to sleep on his/her stomach. Safe sleep should always be followed, even during nap time.

How many sleep-related deaths have occurred in Hamilton County?



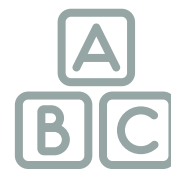
ALWAYS FOLLOW THE ABCs OF SAFE SLEEP, EVEN DURING NAP TIME.



Alone

Back

Crib



Baby sleeps safest alone, on his/her back, in a crib.

WANT MORE INFO?

Do you want to learn more about maternal and infant health in Hamilton County?

Visit us on-line for more information and additional reports on maternal and infant health in Hamilton County.

http://www.hamiltoncountyhealth.org/en/resource_library/reports.html

www.cradlecincinnati.org/our-work/facts-and-data/

JOIN US ON SOCIAL MEDIA

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This report was prepared by Hamilton County Public Health, Department of Community Health Services, Division of Epidemiology and Assessment in collaboration with Cradle Cincinnati.

1. Centers for Disease Control and Prevention. (2015, August 12). Infant Mortality. Retrieved June 19, 2016, from <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>
2. Association of Maternal & Child Health Programs. (n.d.). State Infant Mortality Toolkit: Why Focus on Infant Mortality?. Retrieved June 9, 2016, from <http://www.amchp.org/programsandtopics/data-assessment/InfantMortalityToolkit/Documents/Why%20Focus%20on%20IM.pdf>
3. Oken E, Leinman KP, Rich-Ewards J, Gillman MW (2003, July 8). A nearly continuous measure of birth weight for gestational age using a United States reference. BMC Pediatric. 2003; 3:6. doi: 10.1186/147-2431-3-6.
4. U.S. Department of Health and Human Services. (n.d.). Prenatal - First Trimester Care Access. Retrieved June 19, 2016, from <http://www.hrsa.gov/quality/toolbox/measures/prenatalfirsttrimester/>
5. Association of Maternal & Child Health Programs (2013). Life Course Indicator: Breastfeeding Support. Retrieved June 19, 2016, from http://www.amchp.org/programsandtopics/data-assessment/LifeCourseIndicatorDocuments/LC-04_BFSupport_Final-2-14-2015.pdf
6. Hauck F, Thompson J, Tanabe K, Moon R, Vennemann M. Breastfeeding and reduced risk of sudden infant death syndrome: A meta-analysis. Pediatrics, 2011; 128:1. doi: 10.1542/peds.2010-3000.

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